

FIG. 1B

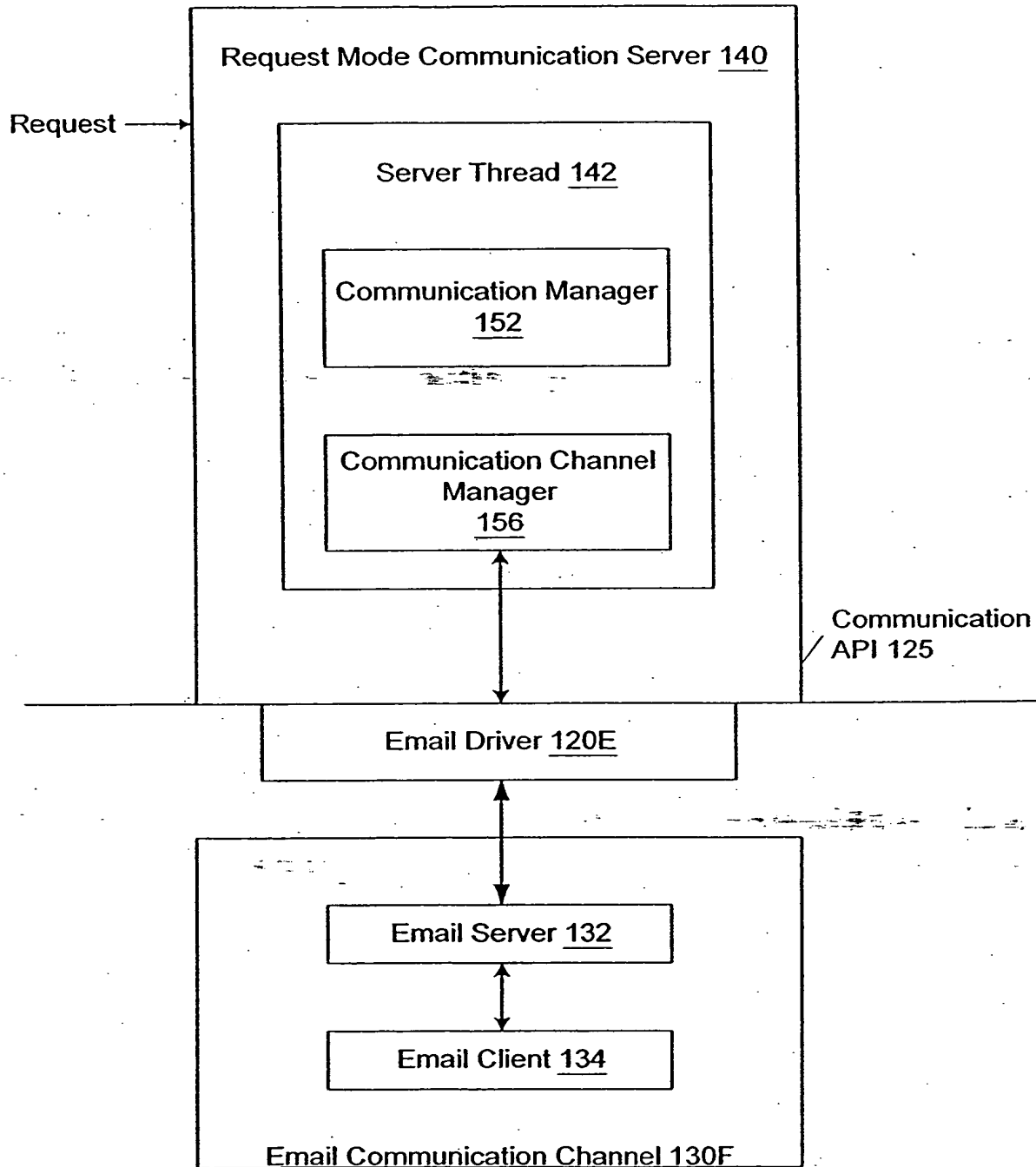


FIG. 1C

406290" 95456860

Attorney Docket No.:
First Invented Inventor:
Title:

M-11830 US
Anil K. Annadata et al.
System and Method For Multi-Channel Communication
Queuing Using Routing and Escalation Rules

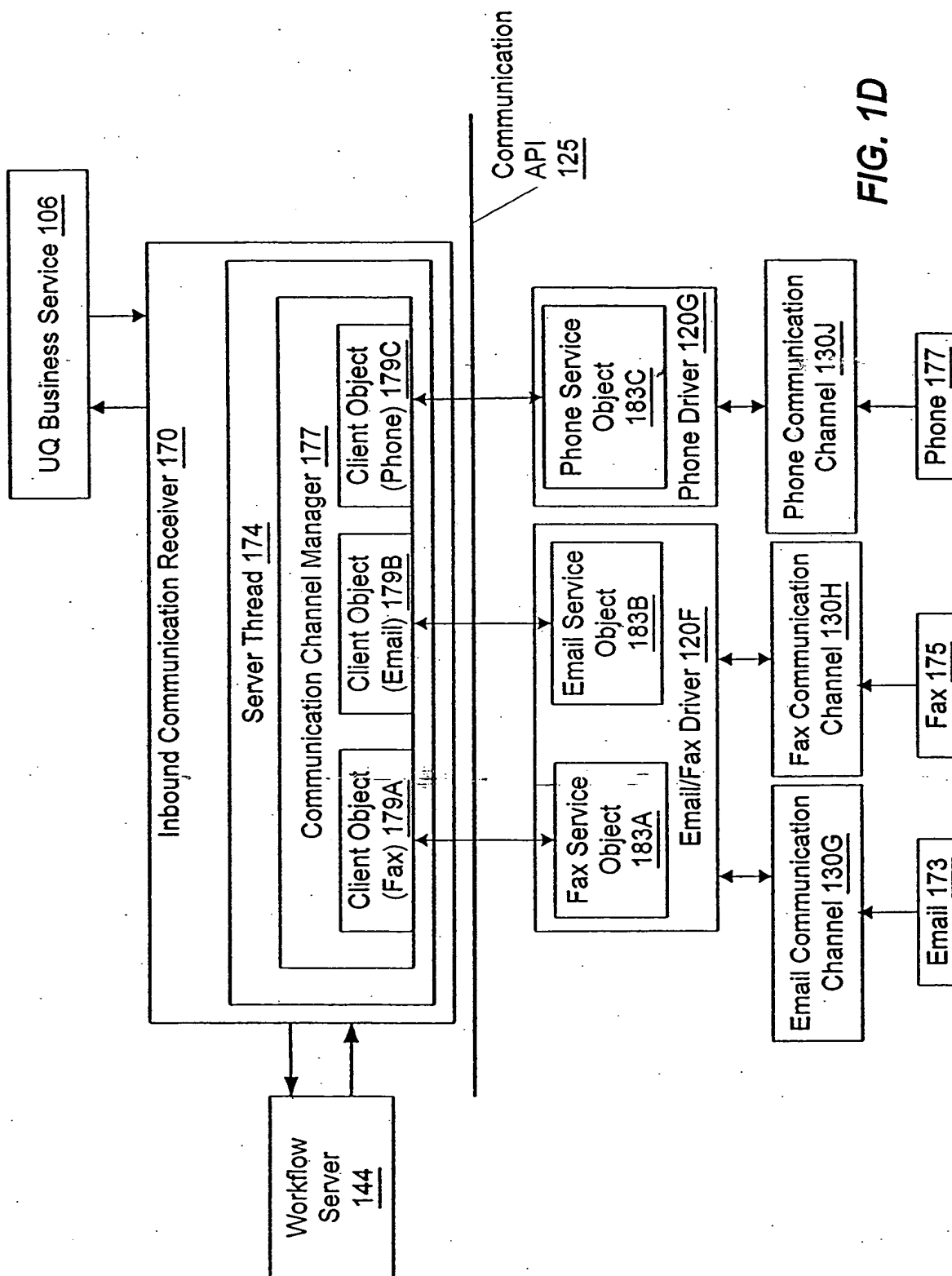
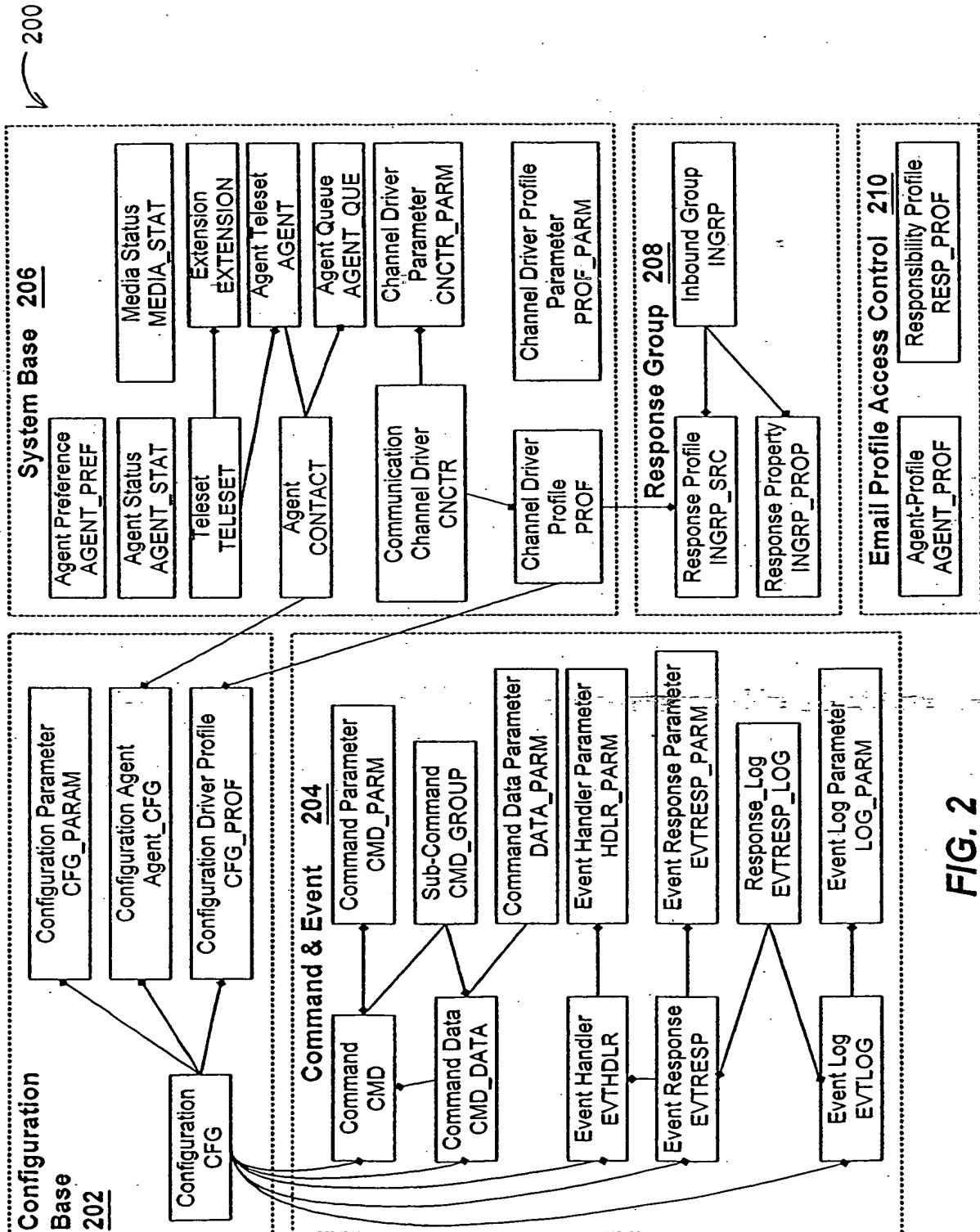


FIG. 1D



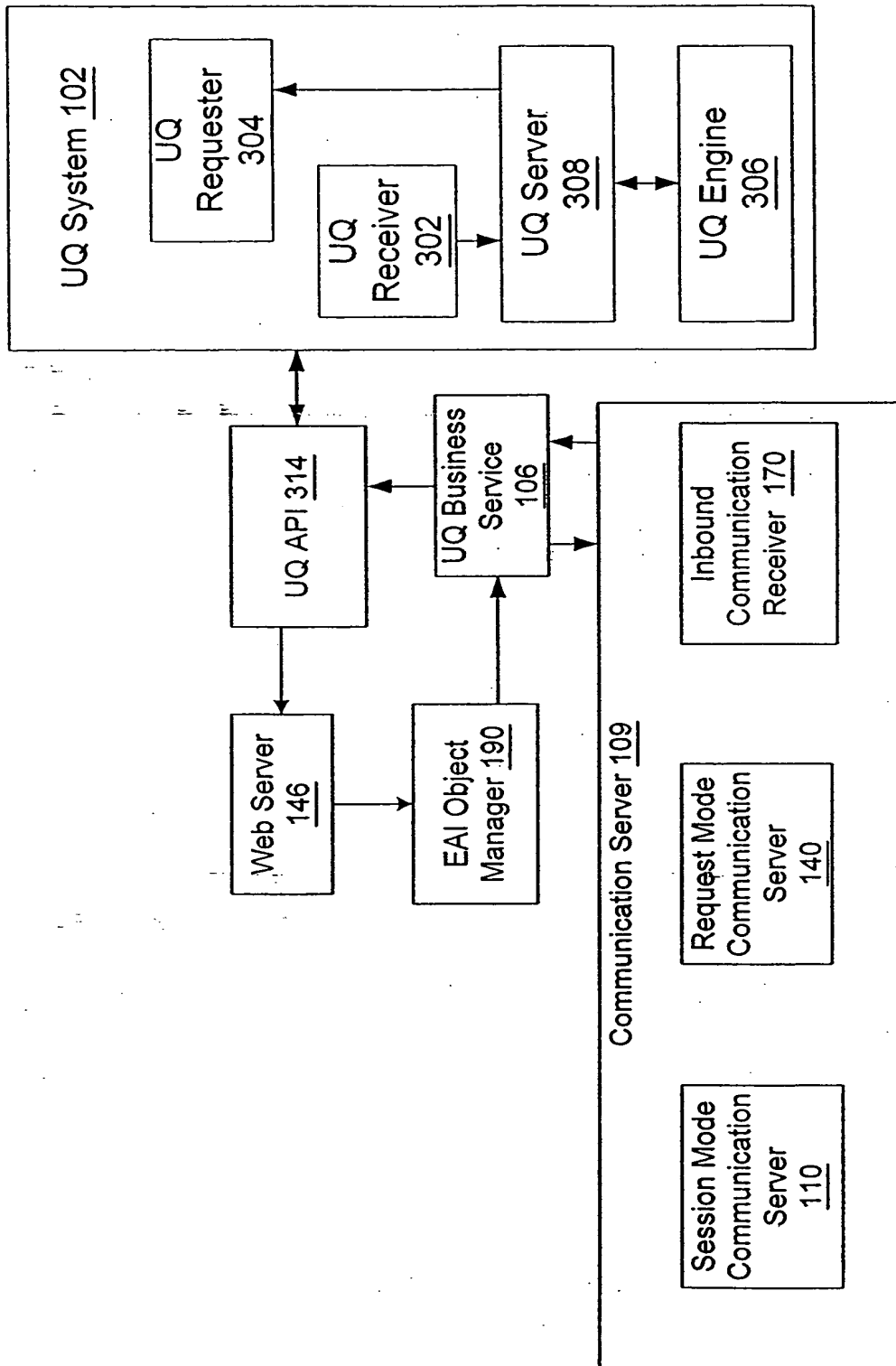


FIG. 3

FIG. 4A: TABLE UQ_CFG

Column_Name	Type	Length	Comments
NAME	Varchar	75	
SERVER_NAME	Varchar	75	
SERVER_PORT	Number	10	
RECEIVER_NAME	Varchar	75	
RECEIVER_PORT	Number	10	

FIG. 4B: TABLE UQ_CFG_PARAM

Column_Name	Type	Length	Comments
UQ_CFG_ID	Varchar	15	
NAME	Varchar	50	
VALUE	Varchar	50	

FIG. 4C: TABLE UQ_ROUTERULES

Column_Name	Type	Length	Comments
Rule ID	VarChar	75	User defined name of the route
PRIORITY_CD	Varchar	30	Lower the value, higher the priority.
MEDIA_TYPE_CD	VarChar	30	Select from list of values including "PBX", "Web Chat", "Web Collaboration", "Fax", "E-Mail"
MEDIA_SERVICE_LEVEL	Number	10	The number of seconds by which the majority of the work items need to be handled for a media type to which the routing rule corresponds
ACTIVE_FLG	Char	1	Indicates whether this route is active or not. If the route is not active, information for this route will not be passed to UQ engine.
SERVICE_LEVEL	Number	10	The number of seconds by which the majority of the work items need to be handled in the route
CAPACITY	Number	10	Maximum capacity of this route. Alarm is raised when the number of queued item exceeds the CAPACITY
SELECTION CRITERIA	Char		
IsContact	Boolean	1	
TIME_OUT_SCND	Number	10	Time in second in which when the work item is not server, the first escalation rule will be effective.
RouteToUnavailable	Boolean	1	Can a workitem in this route be routed to an agent who is not available?

FIG. 4D: TABLE UQ_ROUTE_PROP

Column_Name	Type	Length	Comments
UQ_ROUTE_ID	Varchar	15	
NAME	Varchar	75	Name of the property
VALUE	Varchar	75	Value of the property

FIG. 4E: TABLE UQ_ROUTE_ESCL

Column_Name	Type	Length	Comments
UQ_ROUTE_ID	Varchar	15	
NAME	Varchar	75	Name of the escalation rules
TIME_OUT_SCND	Number	10	Time in seconds in which the escalation rule will be timed out. Zero time means waiting indefinitely.
SEQ_NUM	Number	10	Order of escalation rules

FIG. 4F: TABLE UQ_RTESCL_RUL

Column_Name	Type	Length	Comments
ROUTE_ESCL_ID	Varchar	15	
SKILL_NAME	Varchar	50	Skill
SKILL_ITEM	Varchar	50	Name of skill items. For example "English" for Language skill. If skill item is null, it is a substitution of language from the work item data property. This is typically used when different rules for different languages are not required. Languages can be retrieved from the work item data property.
EXPERTISE	Varchar	30	Level of skill is chosen from a list of values, for example: 3 = EXPERT 2 = INTERMEDIATE 1 = NOVICE 0 = NO_SKILL

FIG. 4G: TABLE UQ_SKL_MAP

Column_Name	Type	Length	Comments
ROUTE_PROP_NAME	Varchar	75	Route property name
ROUTE_PROP_VALUE	Varchar	75	Route property value
SKILL_NAME	Varchar	75	Skill name
SKILL_VALUE	Varchar	75	Skill value

FIG. 4H: TABLE UQ_USER_MEDIA

Column_Name	Type	Length	Comments
USER_ID	Varchar	15	Agent number
MEDIA_TYPE_CD	varchar	30	Type of media
MAX_NUM_SESSIONS	Number	10	Maximum sessions of this media type allowed for this agent.

FIG. 4i: TABLE UQ_ROUTE_ST

Column Name	Type	Length	Comments
ROUTE_ID	Varchar	75	
START_TS	Date Time		Start time
END_TS	Date Time		End time
SOURCE_NAME	Varchar	75	The route name
AVG_WAIT_TM	Number	10	Waiting time during the given period
AVG_HANDLE_TM	Number	10	Handling time during the period
NUM_ABANDONED_REQS	Number	10	Number of abandoned requests
AVG_ABANDONING_TM	Number	10	Average time until request is abandoned
LONGEST_WAIT_TM	Number	10	Longest waiting time in seconds
AVAIL_USER_PCT	Number	10	Percentage of available agents
AUX_WORK_USER_PCT	Number	10	Percentage of auxwork agents
TOTAL_NUM_WORKITEMS	Number	10	Total number of work items
TOTAL_NUM_UNASSIGNED_WORKITEM	Number		Total number of unassigned work items.
TOTAL_NUM_DELIVERED_WORKITEM	Number		Total number of delivered work items.
TOTAL_NUM_SERVICE_LEVEL_WORKITEM	Number		Total number of service level work items.
Comments	Varchar	250	

FIG. 4J: TABLE UQ_MEDIA_STS

Column_Name	Type	Length	Comments
MEDIA_TYPE_CD	Varchar	30	
START_TS	Date Time		
END_TS	Date Time		
SOURCE_NAME	Varchar	75	Either the route name
AVG_WAIT_TM	Number	10	Waiting time during the given period
AVG_HANDLE_TM	Number	10	Handling time during the period
NUM_ABANDONED_REQS	Number	10	Number of abandon request
AVG_ABANDONING_TM	Number	10	
LONGEST_WAIT_TM	Number	10	Longest waiting time in seconds
AVAIL_USER_PCT	Number	10	Percentage of available agents
AUX_WORK_USER_PCT	Number	10	Percentage of auxwork agents
TOTAL_NUM_WORKITEMS	Number	10	Total number of agent if each agent handle only one work item
TOTAL_NUM_UNASSIGNED_WO RKITEM	Number		
TOTAL_NUM_DELIVERED_WOR KITEM	Number		
TOTAL_NUM_SERVICE_LEVEL_ WORKITEM	Number		
Comments	Varchar	250	

FIG. 4K: TABLE UQ_USER_STS

Column_Name	Type	Length	Comments
USER_ID	Varchar	15	
START_TS	Date Time	7	
END_TS	Date Time	7	
CONTACT_ID	Varchar	15	
AVAIL_PCT	Number		Percentage available
BUSY_PCT	Number		Percentage busy
AUX_WORK_PCT	Number		Percentage auxwork
NUM_COMM_ITEM_SRVD	Number		Number of work item served
Comments	Varchar	250	

FIG. 4L: TABLE UQ_ERR_LOG

Column_Name	Type	Length	Comments
Name	Date Time	7	
TYPE_CD	Varchar	30	Either alarm or error
Severity	Varchar	30	
ERROR_CODE	Varchar	10	Alarm code or error code
MSG_DESC	Varchar	250	Template for message

FIG. 4M: S_JOURNAL

Column_Name	Type	Length	Comments
WORK_ITEM_ID	Varchar	250	Work item ID
ROUTE_NAME	Varchar	75	The name of the route. Use the actual name instead of ID because the nature of the route could be changing from time to time.

S_JOURNAL_WORKITEM_PROPERTY

Column_Name	Type	Length	Comments
JOURNAL_ID	Varchar	15	
Name	Varchar	75	Name of the property
Value	Varchar	75	Value of the property

S_JOURNAL_ESC_HIST

Column_Name	Type	Length	Comments
JOURNAL_ID	Varchar	15	
ESC_STEP_NAME	Varchar	75	
START_TIME	Date Time		Start time
END_TIME	Date Time		
RESULT	Varchar	75	

FO6290" 95456860

S_JOURNAL_STATE_HIST

Column_Name	Type	Length	Comments
JOURNAL_ID	Varchar	15	
USERID	Varchar	15	
START_TIME	Date Time		Start time
END_TIME	Date Time		
AGENTSTATE	Varchar	50	
REASON	Varchar	50	

Attorney Docket No.:
First Invented Inventor:
Title:

M-11830 US
Anil K. Annadata et al.
System and Method For Multi-Channel Communication
Queuing Using Routing and Escalation Rules

Attorney Docket No.:
First Invented Inventor:
Title:

M-11830 US
Anil K. Annadata et al.
System and Method For Multi-Channel Communication
Queuing Using Routing and Escalation Rules

402-
404-
406-408
410-
412-
414-
416-

FO6290" 95H56860
400

Siebel Call Center - Microsoft Internet Explorer

Address: http://localhost:8080/stal.swe

File Edit View Favorites Tools Help

Back Forward Stop Reload Home

Search Engine History

Site Map Help Profile Logout

Routes

Route:

Item	Channel Type	Active	Priority	Item	Real Time	Service Level (mins)	Service Level (%)	Capacity
Val Route	SD_EMail	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>	1	98	10	
Wai Route #2	SD_Web Collaboration	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	10	100	50	
Temp Route	SD_Web Collaboration	<input type="checkbox"/>	1	<input type="checkbox"/>				
InActive Route	E-Mail	<input type="checkbox"/>	SD_10	<input type="checkbox"/>	16.667	87	100	
Test route 2	E-Mail	<input type="checkbox"/>	10	<input checked="" type="checkbox"/>	120	88	120	
Fax 1	SD_Fax	<input type="checkbox"/>	8	<input type="checkbox"/>	0.5	75	5	
Fax#	SD_Fax	<input type="checkbox"/>	7	<input type="checkbox"/>	5	56	5	

406-408

Escalations

Begin Group	Property/Name	Relation	Property Value	End Group	Join
	RECIPIENT	=	turntable.com		AND
	CATEGORY	=	chair		OR
	CATEGORY	=	table		

FIG. 4g

106290" 95456860

400

Attorney Docket No.: M-11830 US
First Named Inventor: Anil K. Annadata et al.
Title: System and Method For Multi-Channel Communication
Queuing Using Routing and Escalation Rules

Siebel Call Center - Microsoft Internet Explorer

http://localhost:8080/start.swe

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Mail News RSS Feeds

File Edit View Help

Std Map Help Profile Logout

Home Accounts Activities Agreements Assets Calendar Campaigns Communications Contacts Decision Issues Households Info Gen

Show Routes

Name	Channel Type	Active	Priority	Non Real Time	Service Level (mins)	Service Level Percentage (%)	Capacity	Save
Wai Route	SD_Email	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	1	98	10	<input type="button" value="Save"/>
Wai Route #2	SD_Web Collaboration	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	10	100	50	<input type="button" value="Save"/>
Temp Route	SD_Web Collaboration	<input type="checkbox"/>	1	<input type="checkbox"/>				<input type="button" value="Save"/>
InActive Route	E-Mail	<input type="checkbox"/>	SD_10	<input type="checkbox"/>	16.67	87	100	<input type="button" value="Save"/>
Test route 2	E-Mail	<input type="checkbox"/>	10	<input checked="" type="checkbox"/>	120	88	120	<input type="button" value="Save"/>
Fax 1	SD_Fax	<input type="checkbox"/>	8	<input type="checkbox"/>	0.5	75	5	<input type="button" value="Save"/>
Fax#	SD_Fax	<input type="checkbox"/>	7	<input type="checkbox"/>	5	56	5	<input type="button" value="Save"/>

Properties

Escalation Name

Esc 1

Time Out (mins)

0

Order

1

Save

Escalation Rules

Begin Group

Skill Name

Relation

Skill Item

End Group

Join

Sequence

Save

Language

ENU

SD Novice

1

401

402

403

FIG. 4r

106290" 95456860

424

Attorney: Docket No.: M-11830 US
First Invented Inventor: Anil K. Annadata et al.
Title: System and Method For Multi-Channel Communication
Queuing Using Routing and Escalation Rules

426

427

430

Stibel Call Center - Microsoft Internet Explorer

http://localhost:8080/start.swe

Stibel Call Center

Channels

Channel Type	Primary	Failure Recoverable	Service Level (mins)	Service Level Percentage (%)	Save
SD_Fax	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12	3	<input type="button" value="Save"/>
SMS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.75	45	<input type="button" value="Save"/>
Pager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.2	12	<input type="button" value="Save"/>
E-Mail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5	100	<input type="button" value="Save"/>
SD_FTP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5	85	<input type="button" value="Save"/>
Voice	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	80	<input type="button" value="Save"/>

Properties

SD_FTP

Name

Description

Save

FIG. 4s